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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/539,128	02/06/2006	Samuel Boutin	273912US2XPCT	2712

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EXAMINER
BHAT, ADITYA S

ART UNIT	PAPER NUMBER
2863	

NOTIFICATION DATE	DELIVERY MODE
02/27/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.	Applicant(s)	
	10/539,128	BOUTIN, SAMUEL	
	Examiner	Art Unit	
	ADITYA BHAT	2863	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/24/08*.

2a)☐ This action is FINAL. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *12-25 and 29-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *12-25 and 29-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *06 February 2006* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status

1. Claims 12-25 and 29-31 are currently pending.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/24/08 has been entered.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 12-25, 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Larsson et al. (USPN 2004/0133289) in view of Nerwin v. Erlichman, 168 USPQ 177, 179..

With regards to claim 12, Larsson et al. (USPN 2004/0133289) teaches a method for diagnosing functional faults of a functional architecture *comprising* functions for performing a service and associated with sensors and actuators that produce and consume data, said method comprising:

mapping said functions onto hardware architecture composed of hardware components (page 4, paragraph 0065)

measuring a property of said physical object with at least one of said sensors so as to obtain raw data (Page 4, paragraph 0060)

creating a list of particular values, (Page11, paragraph 0175) based on said raw data and corresponding to functional faults of the sensors and actuators(page 2, paragraph 0017, lines 14-15) are listed;

creating a list of particular values(Page11, paragraph 0175) corresponding to functional states for said hardware components relative to a propagation of signals through said hardware architecture thereby indicating a state of propagation(flow) of an information stream relating to defects across the functions are listed; (Page1-2, paragraph 0009)

formulating a functional diagnosis of the service based on the first and second lists of particular values; (Page11, paragraph 0184)and

recording the particular values and their propagation on a memory device(22) for a tool provided for validation of the architecture. (Page11, paragraph 0184)

With regards to claims 13 and 31, Larsson et al. (USPN 2004/0133289) teaches hardware architecture is an electronic architecture(Page 4, paragraph 0057) after formulating of said functional diagnostic, said method comprises a step of deducing an operational diagnosis of electronic architecture onto which said functions are mapped said electronic architecture comprising calculator, networks signal lines and connectors. (fig 17)

With regards to claim 14, Larsson et al. (USPN 2004/0133289) teaches creating the lists of said particular values is performed after mapping of the functions onto the electronic architecture. (Page11, paragraph 0175-0176)

With regards to claim 15, Larsson et al. (USPN 2004/0133289) teaches the particular values are correspond to *at least one* of the following values:

cut bus; corrupted frame; short circuit applied to a wire; wrong contact applied to a connector of a strand, sensor, actuator or calculator; (page 5, paragraph 0067) and execution fault applied to a microcontroller.

With regards to claim 16, Larsson et al. (USPN 2004/0133289) teaches an said operational diagnosis for the service, the functional particular values associated with sensors, actuators, and the method further comprising a step of listing functions executing the service for at least one data flow between two functions, or between a sensor and a function, or between a function and an actuator, for which no functional particular value is defined for the flow, if an operational particular value is defined, then a new functional particular value is automatically determined for this at least one data flow. (Pages 1-2, Paragraph 009)

With regards to claim 17, Larsson et al. (USPN 2004/0133289) teaches listing undiagnosed feared incidents are listed to construct an analysis of functional safety of the functional architecture. (Page 10, paragraph 0167-0168)

With regards to claim 18, Larsson et al. (USPN 2004/0133289) teaches the particular values and feared incidents are listed according to the method, to deduce an analysis of functional safety of the resulting functional architecture. (fig 17-18)

With regards to claim 19, Larsson et al. (USPN 2004/0133289) teaches the functional architecture comprises an architecture with which a vehicle can be equipped. (Page 11, paragraph 0170) Whatever the engine is driving is being interpreted as the vehicle.

With regards to claim 20, Larsson et al. (USPN 2004/0133289) teaches an analyzing feasibility and/or susceptibility to failure of functioning of the architecture and of establishment of an output indicating the feasibility and/or susceptibility to failure. (Page10, paragraph 0167)

With regards to claim 21, Larsson et al. (USPN 2004/0133289) teaches a commercial article provided with a computer-readable memory, a program executable by a computer being recorded in the memory for diagnosis of functional faults of a functional architecture including function for performing a service in a physical object and associated with a sensor, the program including encoding for:

mapping said functions on to a hardware architecture composed of hardware components; (page 4, paragraph 0065)

measuring a property of said physical object with said sensors so as to obtain raw data(page 4, paragraph 0060)

determining and listing particular values (Page11, paragraph 0175) based on said raw data and corresponding to functional faults of sensors and actuators(page 2, paragraph 0017, lines 14-15)

determining and listing particular values (Page11, paragraph 0175) corresponding to functional states for said hardware components relative to a propagation of signals through said hardware architecture thereby indicating a state of propagation of information relating to these faults across the functional architecture; (Page1-2, paragraph 0009)

iii) forming the functional diagnosis of the service as a function of the lists obtained from the determining (i) and (ii); ((Page 5, paragraph 0070) and

iv) recording the particular values and their propagation on a memory(20) (Page 5, paragraph 0080)

With regards to claim 22, Larsson et al. (USPN 2004/0133289) teaches a data-processing tool programmed to perform the method for diagnosing functional faults of a functional architecture. (Page 5, paragraph 0072)

With regards to claim 23, Larsson et al. (USPN 2004/0133289) teaches a data-processing tool comprising a commercial article (Page 5, paragraph 0072)

With regards to claim 24, Larsson et al. (USPN 2004/0133289) teaches a particular values that permit propagation of said information relating to said functional faults of said sensors and actuators include a value associated with the presence of a

connection fault (Page 5, paragraph 0106) between said sensors and actuators. (Page 2, paragraph 0017)

With regards to claim 25, Larsson et al. (USPN 2004/0133289) teaches the connection fault is a short circuit formed by a wire (communication link) between said hardware components. (page 5, paragraph 0076)

With regards to claim 29, Larsson et al. (USPN 2004/0133289) teaches the physical object is a vehicle (Page 11, paragraph 0170)

Whatever the engine is driving is being interpreted as the vehicle.

5. Larsson et al. (USPN 2004/0133289) discloses the claimed invention except for creating multiple lists. It would have been obvious to one having ordinary skill in the art at the time the invention was made to separate the list taught by Larsson et al. in order to more easily process the data, since it has been held that constructing a formerly integral structure in various elements involves only routine skill in the art. Nerwin v. Erlichman, 168 USPQ 177, 179.

6. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Larsson et al. (USPN 2004/0133289) in view of Breed (USPN 2008/0216567)

With regards to claim 30, Larsson et al. (USPN 2004/0133289) does not appear to teach a wheel speed sensor for a vehicle.

With regards to claim 30, Breed (USPN 2008/0216567) teaches a wheel speed sensor for a vehicle. (Page 10, paragraph 0259)

It would have been obvious to one having ordinary skill in the art at the time the invention was made to determine the wheel speed in order to insure optimal wheel performance.

The breed reference is directed to diagnosing a wheel and the Larsson reference is directed to diagnosing a flow system. Both are directed to diagnosing functional architecture.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 12-25 and 29-31 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Specifically, the process steps should (1) be tied to another statutory class (such as a particular apparatus) or (2) transform underlying subject matter (such as an article or materials) to a different state or thing. If neither of these requirements is met by the claim, the method is not a patent eligible process under *35 USC § 101* and has been rejected as being directed towards non-statutory subject matter.

In this instance it is unclear what is doing the mapping, measuring. creating etc.

Response to Arguments

9. Applicant's arguments filed 12-25 and 29-31 have been fully considered but they are not persuasive.

Applicant is reminded that during patent examination, the pending claims must be "given the broadest reasonable interpretation consistent with the specification." Applicant always has the opportunity to amend the claims during prosecution, and broad interpretation by the examiner reduces the possibility that the claim, once issued, will be interpreted more broadly than is justified. In re Prater, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550-51 (CCPA 1969).

While the meaning of claims of issued patents are interpreted in light of the specification, prosecution history, prior art and other claims, this is not the mode of claim interpretation to be applied during examination. During examination, the claims must be interpreted as broadly as their terms reasonably allowed. This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. In re Zletz, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989).

In this instance applicant argues that the prior art of record does not teach the step of formulating a functional diagnosis of a service based on the first and second lists of particular values, where the particular values of the first list are based on raw data measured by a sensor and correspond to functional faults of the sensors and actuators (page 4, paragraph 0055)and where the particular values of the second list correspond to functional states for hardware components of a hardware architecture on which is mapped a functional architecture with the sensor, the functional states of the hardware components being relative to the propagation of signals through the hardware architecture thereby indicating a state of propagation of information relating to the

functional faults of the sensors and actuators across the functional architecture. (page 4, paragraph 0063)

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Check et al. (USPUB 2004/0262990) teaches a rear pressure control and rear dynamic proportioning in a vehicle brake system.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aditya S. Bhat whose telephone number is 571-272-2270. The examiner can normally be reached on M-F 9-5:30.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on 571-272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aditya Bhat/ Examiner,
Art Unit 2863 February 23, 2009